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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/698,842 | 10/31/2003 | Ovidiu Marin | Serie 6388 | 9308 |
| 7590 | | 12/02/2005 | EXAMINER | |
| Air Liquide | | CASAREGOLA, LOUIS J | | |
| Ste 1800 | | ART UNIT | | |
| 2700 Post Oak Blvd. | | PAPER NUMBER | | |
| Houston, TX 77056 | | 3746 | | |

DATE MAILED: 12/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/698,842

Applicant(s)

MARIN ET AL.

Examiner

Louis J. Casaregola

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/24/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 4-37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Election

Applicants' election of the invention of Group I, claims 1-3, and the species of Figure 1 is acknowledged. The election was made with traverse. Applicants' arguments have been considered but are not however effective in demonstrating that the restriction and species election requirements are improper.

Applicants argue there has been no showing that examination of the different inventive groups in this case would be burdensome. This point is disputed however inasmuch as the method claims of non-elected Group II require searching a method subclass, which is not part of the of the normal examination search for the apparatus claims of elected Group I. Furthermore, the examination burden is not limited to the prior art search but also includes the effort required to apply the art by making and discussing all appropriate grounds of rejection. Multiple inventions, such as those in the present application, normally require additional reference material and further discussion for each additional invention examined. Concurrent examination of multiple inventions would thus typically involve a significant burden even if all searches were coextensive. The restriction requirement in this case is therefore considered proper and is consequently made final.

With regard to the species election requirement, applicants further state that all claims are readable on the elected Figure 1 species. It is agreed that all claims in elected Group I, i.e. claims 1-3, do in fact read on the elected Figure 1 species. It is debatable however whether all claims in non-elected Group II also read on the elected

species, but this point is moot since only the claims of elected Group I must be examined. Group II, claims 4-37, is consequently withdrawn from consideration, and an action on the merits of Group I, claims 1-3, is set forth below.

Claim Rejections - 35 USC 112

Claims 1-3 are rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

The claims are considered vague and indefinite for the following reasons:

Claim 1 and related dependent claims 2-3 recite a "high pressure combustor" and an "intermediate pressure combustor". The term "intermediate" however only has meaning when used in conjunction with both higher and lower reference values. The present claims include no low pressure combustor or other element that would serve to provide a low pressure reference point for the "intermediate pressure combustor".

The claims also recite a high pressure turbine (claim 2) and an intermediate pressure turbine (claim 3) but no low pressure turbine. The "intermediate pressure turbine" thus suffers from the same problem as the "intermediate pressure combustor" discussed above.

Claim 1 and dependent claims 2-3 further describe the high pressure combustor as having “a water recycle temperature control subassembly”, and the claims additionally describe the intermediate pressure combustor as having “a CO₂ recycle temperature control assembly”. These limitations are not fully understood. The preferred embodiment appears to merely connect each respective combustor with a water or CO₂ recycle line. Is the so-called “temperature control subassembly” simply the recycle line, and if not, what other specific structure are applicants attempting to claim? Furthermore, the term “recycle” only has meaning if the fluid flow(s) involved originate from some downstream point in a given system, but in the present claims, the water and CO₂ recycle fluids have no clear point of origin.


It is additionally emphasized that while the claims are drawn to a “power generation system”, claim 1 merely recites a pair of combustors with temperature controls. The claim lacks even a nominally recitation of any power extraction device, hence, it is not seen how the apparatus in claim 1 can be called “a power generation system”.

References

Viteri et al and LeBas et al are cited as disclosing pertinent examples of prior art gas turbine engines with water and/or CO₂ recycle systems.

Art Unit: 3746

L. J. Casaregola
571-272-4826 (M-F; 7:30-4:00)
571-273-8300 FAX
November 29, 2005


LOUIS J. CASAREGOLA
PRIMARY EXAMINER

If repeated attempts to reach the examiner by telephone are unsuccessful, the art unit supervisor, Timothy Thorpe, can be reached at 571-272-4444.

Information regarding the status of this application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR, and status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).